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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/764,311	01/19/2001	Cheol Hong Min	P-182	6770

7590 12/22/2003

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CHANTILLY, VA 20151

EXAMINER

SENGI, BEHROOZ M

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 12/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

2/2/04

Office Action Summary

Application No.

09/764,311

Applicant(s)

MIN, CHEOL HONG

Examiner

Behrooz Senfi

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-19 is/are rejected.
- 7) ☒ Claim(s) 8 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3,4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 8 is objected to because of the following informalities: the claimed (claim 8, lines 3 – 4) recite “second code obtained by coding the result of adding the lower value from a higher value corresponding to the compressed/coded image”, In which the word “adding” should be replaced with “subtracting”. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1 – 8 and 10 – 19, are rejected under 35 U.S.C. 102(e) as being anticipated by Chiang et al (US 6,160,846).

Regarding claim 1, Chiang '846 discloses, “image processing” (i.e. fig. 6);

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Comprising: “analyzing the received image data” (i.e. fig. 8, 610), and “compressing/coding the image data” (i.e. fig. 8, fig. 6, DWT coder 606), and dividing the compressed/coded image data into a value corresponding to relatively high frequency and relatively low frequency component and decoding” (i.e. fig. 6, DWT decoder 612).

Regarding claim 2, Chiang '846 discloses, “wavelet transform” (i.e. fig. 6, DWT).

Regarding claims 3 - 6, and 11, Chiang '846 discloses, “high pass and low pass filter” (i.e. fig. 7, col. 16, lines 30+), and “the step of storing” is inherent in the Chiang's system.

Regarding claim 7, the claimed “repeatedly performing the decoding,” reads on “decoding loop of fig. 6).

Regarding claim 8, the limitations claimed are substantially similar to claim 5, therefore the grounds for rejecting claim 5, also apply here. As for “decoding step” see (fig. 6, decoder 612).

Regarding claims 10 - 11, the limitations claimed are substantially similar to claim 1, and is the apparatus of the method of claim 1, therefore the grounds for rejecting claim 1 also apply here. Furthermore, as for “motion compensation” please see (fig. 6, 604), and the “filtering the image data” (reads on figs. 7, and 8).

Regarding claim 15, the limitations claimed “filtering and decoding” reads on (fig. 6 and 7, decoder 612).

Regarding claims 12 – 14, 16 and 18 - 19, the claimed “coding table, which indexes the image data” reads on (col. 3, lines 53 – col. 4, lines 10, and fig. 6 of Shapiro '741 (incorporated reference)), and “mapping” (col. 4, lines 1 – 16).

Regarding claim 17, the claimed limitations “variable length coding and de-quantizing and inverse transform unit and motion compensation information” reads on (fig. 8, entropy coder/variable length coder 806 and quantizer 804, and the inverse process 612).

Allowable Subject Matter

4. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is an examiner's statement of reasons for allowance: the prior art of the record fails to anticipate or rendered obvious the novelty point of the “step of compressing/coding the image data of sub-blocks (4x1 pel, 32 bits) as 24 bits data by coding the image data as following; dividing the sub-blocks into two image data having high frequency components and low frequency components by wavelet transform, then coding two image data having two high frequency components by allocating five bits, respectively; and coding the first one of the two image data having the low frequency components as eight bits data; and coding the second one of the two image data having the low frequency components as six bits data” as claimed.

Conclusion

6. Any inquiry concerning this communication or earlier communications

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from the examiner should be directed to **Behrooz Senfi** whose telephone number is **(703)305-0132**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Chris Kelley** can be reached on **(703)305-4856**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:

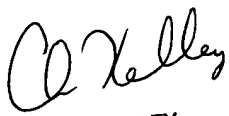
(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relative to the status of the application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

B. S. B, S.

12/9/2003


CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600